REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-16 are currently pending in the application. Claims 1, 7-8 and 14-16 are amended; and Claims 17-20 are canceled without prejudice or disclaimer by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings.[1] No new matter is presented.

In the Office Action, Claim 8 is rejected under 35 U.S.C. § 101; Claims 15 and 17-20 are rejected under 35 U.S.C. § 112, first paragraph; Claims 7 and 14 are rejected under 35 U.S.C. § 112, second paragraph; Claims 1-5, 8-12 and 15-16 are rejected under 35 U.S.C. § 102(b) as anticipated by Kondo et al. (U.S. Pub. 2004/0021775, herein Kondo '775); Claims 6 and 13 are rejected under 35 U.S.C. § 103(a) as unpatentable over Kondo '775 in view of Wang et al. (U.S. Pat. 5,557,684, herein Wang); and Claims 7 and 14 are rejected under 35 U.S.C. § 103(a) as unpatentable over Kondo '775 in view of Wang and Kondo et al. (U.S. Pat. 5,940,539, herein Kondo '539).

The Office Action rejects Claim 8 under 35 U.S.C. § 101, as directed to non-statutory subject matter, asserting that the claimed process is not tied to another statutory category. In response, Claim 8 is amended to specify that the method is "performed by an image processing apparatus" and the output step is "performed by a processor of said image processing apparatus". Support for these features can be found in the original disclosure.[2]

Accordingly, Applicants respectfully request that the rejection of Claim 8 under 35 U.S.C. § 101 be withdrawn.

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[1] e.g., at least at Figs. 24A-24C, paragraphs [0130]-[0131] and [0160]-[0161] of the published version of the present application (PGPUB 2006/0192857).
[2] See paragraphs [0130]-[0131] of PGPUB 2006/0192857.

The Office Action rejects Claims 15 and 17-20 under 35 U.S.C. § 112, first paragraph. Claims 17-20 are canceled by the present amendment, thereby rendering the rejection of these claims moot.

Regarding the rejection of Claim 15, this claim is amended to recite "a memory" instead of "a computer-readable memory". As noted in the Office Action, paragraph [0130] of PGPUB 2006/0192857 clearly describes that a CPU performs a variety of kinds of processing according to a program stored in a ROM or storage section, which is made up of, for example, a hard disk, to store a program to be executed by the CPU and a variety of kinds of data. Thus, the ROM or "storage sections" are clear examples of a "memory" that stores the program, which is read by, and executed, by the CPU.

Accordingly, Applicants respectfully request that the outstanding rejection under 35 U.S.C. § 112, first paragraph, be withdrawn.

The Office Action rejects Claims 7 and 14 under 35 U.S.C. § 112, second paragraph, asserting that the use of the term "class" renders these claims indefinite.

In response, Claims 7 and 14 are amended to clarify that the "class" is a "movement class", as disclosed in an exemplary embodiment at paragraphs [0165] – [0175] of PGPUB 2006/0192857.

Accordingly, Applicants respectfully request that the rejection of Claims 7 and 14 under 35 U.S.C. § 112, second paragraph, be withdrawn.

The Office Action rejects Claims 1-5, 8-12 and 15-16 under 35 U.S.C. § 102(b) as anticipated by Kondo '775. In response to this rejection, Applicants respectfully submit that amended independent Claims 1, 8, 15 and 16 recite novel features not disclosed by Kondo '775.

Independent Claim 1, for example, is amended to recite, *inter alia*, an apparatus for processing an image, said apparatus comprising:

> motion vector detection means for detecting a motion vector about a moving object that moves in multiple images ... and tracking the moving object;
>
> motion-blurring-mitigated object image generation means for generating *a motion-blurring-mitigated object image* in which motion blurring of the moving object is mitigated using the motion vector detected by the motion vector detection means; and
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> output means for combining *the motion-blurring-mitigated object image* ... into *a space-time location in each of the multiple images* based on the motion vector detected by the motion vector detection means, to output it as a motion-blurring-mitigated image.

Independent Claims 8 and 15-16, while directed to alternative embodiments, are amended to recite similar features. Accordingly, the remarks and arguments presented below are applicable to each of independent Claims 1, 8, 15 and 16.

As disclosed in an exemplary embodiment at Figs. 24A-C and paragraphs [0160] – [0161] of PGPUB 2006/0192857, motion blurring of an moving object OBf is mitigated to output its image, so that, as shown in Fig. 24 even when the moving object OBf moves in an order of Figs. 24A, 24B, and 24 C (e.g., through subsequent time lapsed multiple images) motion blurring of this moving object OBf is mitigated by tracking the moving object in the images. Otherwise stated, a single (e.g., *the*) motion-blurring-mitigated object image is generated and combined with each of multiple subsequent images (e.g. time) based on the tracking of the object (e.g., space) within each of the images.

Turning to the applied reference, Kondo '775 describes an image processing device that detects a movement vector of a moving object by detecting a mixture ratio indicating the proportion of mixing with an image, or taking into consideration a region mixed with the image.[3] As described in paragraphs [0334]-[0336], Kondo '775's apparatus includes a blurring adjustment unit 106 that uses a movement vector to adjust movement blurring amounts contained in foreground component images.

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[3] Kondo, Abstract.

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Kondo '775, however, fails to teach or suggest "generating *a* motion-blurring-mitigated object image" and "combining *the* motion-blurring-mitigated object image ... into *a space-time location in each of the multiple images* based on the motion vector detected by the motion vector detection means", as recited in amended independent Claim 1.

In rejecting the claimed features directed to the "output means", the Office Action again relies on Fig. 137 of Kondo '775 noting the "'Image Synthesizing Unit', where the 'Background Component Image' and the 'Foreground Component Image' are combined". As described at paragraphs [1154]-[1158] of Kondo '775, in the synthesizing unit 4001, a background component creating unit 4021 generates a background component image and supplies this to a mixed region image synthesizing unit 4022. The mixed region image synthesizing unit 4022 synthesizes the background component image supplied from the background component creating unit 4021 with the foreground component image to generated a mixed region synthesized image, and supplies the generated mixed region synthesized image to an image synthesizing unit 4023. The image synthesizing unit 4023 synthesizes the foreground component image, mixed region synthesized image supplied from the mixed region image synthesizing unit 4022, and the arbitrary background image, to generate and output a synthesized image.

Thus, this cited portion of Kondo '775 merely describes a process of (1) creating a background component; (2) generating a mixed region synthesized image based on the background component image and the foreground component image; and (3) synthesizing all three of the aforementioned components to generate a synthesized image. Kondo '775, however, fails to teach or suggest "generating *a* motion-blurring-mitigated object image" and "combining *the* motion-blurring-mitigated object image ... into *a space-time location in each of the multiple images* based on the motion vector detected by the motion vector detection means", as claimed.

More particularly, assuming that the foreground component of <u>Kondo</u> '775 is asserted as being analogous to the claimed "motion-blurring-mitigated object image", a separate foreground image for each synthesized image in <u>Kondo</u> '775 is generated and combined independently, as discussed above. Claim 1, on the other hand, clearly recites that "*a* motion-blurring-mitigated object image" is generated and this same "*the* motion-blurring-mitigated object image" is combined into *a space-time location in each of the multiple images*. <u>Kondo</u> '775 fails to teach or suggest that one foreground component image is combined with "multiple images, each of the multiple images being made up of multiple pixels and acquired by an image sensor having time integration effects", as recited in amended independent Claim 1.

<u>Kondo</u> '775, therefore, fails to teach or suggest "generating *a* motion-blurring-mitigated object image" and "combining *the* motion-blurring-mitigated object image ... into *a space-time location in each of the multiple images* based on the motion vector detected by the motion vector detection means", as recited in amended independent Claim 1.

Accordingly, Applicants respectfully request that the rejection of Claim 1 (and Claims 2-5 which depend therefrom) under 35 U.S.C. § 102 be withdrawn. For substantially similar reasons, it is also submitted that independent Claims 8 (and Claims 9-12 which depend therefrom) and 15-16 patentably define over <u>Kondo</u>.
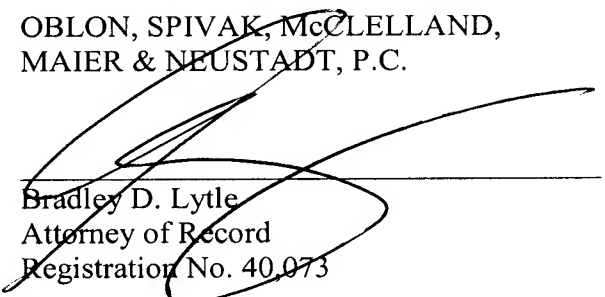
Regarding the rejection of Claims 6-7 and 13-14 under 35 U.S.C. § 103 as unpatentable over <u>Kondo</u> '775 in view of <u>Wang</u> and/or <u>Kondo</u> '539, Applicants note that Claims 6-7 and 13-14 depend from independent Claims 1 and 8, respectively, and are believed to be patentable for at least the reasons discussed above. Further, Applicants respectfully submit that neither <u>Wang</u> nor <u>Kondo</u> '539 remedy the above-noted deficiencies of <u>Kondo</u> '775.

Accordingly, Applicants respectfully request that the rejection of Claims 6-7 and 13-14 under 35 U.S.C. § 103 be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-16 is definite and patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Andrew T. Harry
Registration No. 56,959

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)

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